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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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TAKESHI SUZUKI

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EXAMINER

CHUNG, DANIEL J

ART UNIT

PAPER NUMBER

2672

16

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/439,890

Applicant(s)

SUZUKI, TAKESHI

Examiner

Daniel J Chung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-2 and 4-11 are presented for examination. This office action is in response to RCE filed on 5-3-2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagami et al (5,402,171) in view of Tanaka et al (6,208,376), and further in view of Katayama et al (6,141,036).

Regarding claim 1, Tagami et al discloses that the claimed feature of an image reproduction apparatus comprising: image data ["ordinal image", "panorama image"] receiving means for receiving image data to be displayed ; a display device ["monitor"; 54] having a predetermined display area; display image discrimination means fore receiving the image data to be displayed from the image data receiving means and for discriminating a display mode in which the selected image data is to be displayed, the display mode including at least a normal display mode ["a normal imaging mode for performing single signal reading from an image sensor with a fixed reproduction image output range"

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(See col 5 line 51-54), "pixels used in ordinary mode" in Fig 60, (See col 7 line 27-28, col 26 line 66-68)], and a panoramic display mode ["another mode, panorama mode, for performing signal reading plural times by shifting an object forming position on the image sensor and performing signal processing suitable for this reading , thereby ensuring a variable image output range at the time of image reproduction" (See col 5 line 54-58, col 7 line 28-30, col 25 line 21-22, col 26 line 68)] for a single image [i.e. reproduced image in Fig 49], wherein the display image discrimination means includes means for comparing the aspect ratio of the image data [i.e. $2N_h \times N_v$ in Fig 52] to that of the display area of the display device and, if it differs, determining that the image data is a panoramic image [i.e. mark "P" in Fig 61, Fig 67, "panorama image" in Fig 64-65]; display mode setting means responsive to the display-discrimination means for setting the display mode, based on the determination made by the display discrimination means; and display means for displaying the image data in the display mode set by the display mode setting means. (See Fig 1, Fig 49, Fig 52, Fig 60, Fig 64-65)

Tagami et al does not specifically disclose that "a glance display mode". However, such limitation ["glance mode"] is shown in the teaching of Tanaka et al. (See Fig 16-17, Fig 23, col 1 line 57-60, col 5 line 53-61, col 8 line 7-col 9 line 8, col 12 line 30-31) It would have been obvious to one skilled in the art to incorporate the teaching of Tanaka into the teaching of Tagami, in order to "provide user interface capable of being flexibly operated upon switching between a glance display mode and a fine display mode" (See col 1 line 51-60 in

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Tanaka), thereby generating a particular user's desired image with easy manner, as such improvement is also advantageously desirable in the teaching of Tagami for displaying reproduced images with user friendly manner. (i.e. using thumbnail for easy image selection)

Furthermore, Tagami et al does not explicitly disclose that "determining the panoramic image if the aspect ratio of input image data is differ from the aspect ration of display device." However, such limitation is shown in the teaching of Katayama et al. (See Abstract, Fig 3B, Fig 8, Fig 11) It would have been obvious to one skilled in the art to incorporate the teaching Katayama et al of into the teaching of Tagami, in order to effectively indicate whether the image data is ordinary image or a panorama image, thereby informing the user of whether the mode is normal image mode or the panorama mode at the imaging time, as suggested in Tagami et al. (See col 27 line 8-16, col 27 line 38-44)

Regarding claim 2, refer to the discussion for the claim 1 hereinabove, Tanaka et al discloses that the display mode setting means includes means for appropriately setting a location and size of each image data to be displayed and laying out all images within a designated display area when the display image discrimination means discriminates that the image data is to be displayed at a glance. (See Fig 16-17, Fig 23, col 1 line 57-60, col 5 line 53-61, col 8 line 7-col 9 line 8, col 12 line 30-31)

Regarding claim 4, Tagami et al discloses that the display mode setting means includes means for performing a scroll operation of a panoramic image in a display area using a frame advance button ["direction buttons";53] when the display image discrimination means discriminates that the image data is to be displayed panoramically. (See Fig 49, Fig 50, Fig 52, col 25 line 17-22, col 26 line 8-9)

Regarding claim 5, Tagami et al discloses that the display mode setting means includes means for, when the frame advance button ["playback button"; 52] is operated again after the scroll operation of the panoramic image is completed, starting a scroll operation of a subsequent panoramic image automatically. (See Fig 49, Fig 50, Fig 52, col 25 line 17-22, col 26 line 8-9)

Regarding claim 6, Tagami et al discloses that the display means includes means for switching a scroll display mode [53] for scrolling a panoramic image and a frame advance display mode [52] for advancing images frame by frame. (See Fig 49, Fig 50, Fig 52, col 25 line 17-22, col 26 line 8-9)

Regarding claim 7, Tagami et al discloses that the display means includes means for switching an entire reduced image display mode in which a panoramic image is reduced as it is and the reduced panoramic image is displayed at once within a display area [Fig 67, Also See Katayama (U.S 6,141,036) in references

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cited by Examiner] and a scroll display mode in which a panoramic image of a normal size is scrolled and displayed. (See Fig 49, Fig 50, Fig 52, col 25 line 17-22, col 26 line 8-9)

Regarding claim 8, Tagami et al discloses that the display means includes means for clearly displaying whether an image displayed in a display area is part [“indicating the panorama mode (P)”] or all of the image data [“normal mode”]. (See col 27 line 38-61)

Regarding claim 9, Tagami et al discloses that the display means includes means for performing a superimposed display to show which portion of a panoramic image is currently displayed in a display area when the panoramic image is scrolled in a normal size. (See Fig 49, Fig 50, Fig 52, Fig 60, col 5 line 54-58, col 7 line 28-30, col 25 line 14-22, col 26 line 68, col 26 line 8-9)

Although, Tagami fails to teach a superimposed display, having ‘a reference viewer’ in an analogous system is well known in the art to provide properly projected output image with easy manner.

Regarding claim 10, Tagami et al discloses that the display means has a divided image stepping display mode in which a panoramic image is divided into a plurality of area and the area are advanced frame by frame and displayed step by step when the aspect ratio of the panoramic image is plural times larger than

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that of a display area. (See Fig 49, Fig 50, Fig 52, Fig 60, col 5 line 54-58, col 7 line 28-30, col 25 line 14-22, col 26 line 68, col 26 line 8-9)

Regarding claim 11, Tagami et al discloses that a single/overall image display mode switching means ["mode selector";10] for, when a panoramic image is displayed in a display area, switching between a single image display mode and an overall imaged display, the single image display mode performing a single image display including a representative image display and a reduced image display, and the overall image display mode performing an overall image display including a divided image stepping display and a scroll display. (See Fig 49, Fig 50, Fig 52, Fig 60, col 5 line 54-58, col 7 line 28-30, col 25 line 14-22, col 26 line 68, col 26 line 8-9; Also See "mode switch button";82 in Tanaka)

Response to Arguments/Amendments

Applicant's arguments with respect to claims 1-2 and 4-11 have been considered but are moot in view of the new ground(s) of rejection. Further, in response to the applicant argument that the cited reference does not disclose that "means for discriminating that the image data is a panoramic image when the aspect ratio of the image data differs from that of the display area of the display device." (See Remark p.6 line 15-17) However, Tagami et al inherently shows that such panorama image has a large aspect ratio comparing to the display area of the display device (See Fig 60-63, Fig 67-70, col 27 line 8-16, col 27 line 38-44), as it is notoriously well known in the art that "panoramic image" is

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oblong/elongated/wider image, which compared to the aspect ratio of display unit. (also see the rejection hereinabove) Therefore, applicant's argument filed 4-1-2004 are not persuasive, as obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Chung whose telephone number is (703) 306-3419. He can normally be reached Monday-Thursday and alternate Fridays from 7:30am- 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael, Razavi, can be reached at (703) 305-4713.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306 (Central fax)


(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application
or proceeding should be directed to the Technology Center 2600 Customer
Service Office whose telephone number is (703) 306-0377.

djc
June 12, 2004


JEFFERY BRIER
PRIMARY EXAMINER